



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,242	03/30/2004	Roger G. Sellers	CH-30684 (710240-576)	4836
59582 7590 07/24/2009 DICKINSON WRIGHT PLLC 38525 WOODWARD AVENUE SUITE 2000 BLOOMFIELD HILLS, MI 48304-2970				
EXAMINER				
AMIRI, NAHID				
ART UNIT		PAPER NUMBER		
3679				
MAIL DATE		DELIVERY MODE		
07/24/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,242

Applicant(s)

SELLERS ET AL

Examiner

NAHID AMIRI

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10, and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed 6/29/2009 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/29/2009 has been entered. The application is not in condition for allowance in view of the new grounds of rejection set forth below. Claims 2 and 9 are canceled. Claims 1, 3-8, and 10-12 are pending.

Election/Restriction

Claim 12 stands withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 December 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,042,293 Maughan in view of US Patent No., 2,635,906 Graham et al.

With respect to claims 1, 3 and 4, Maughan discloses a joint assembly (20, Figs. 1, 4) including a metal housing (30) having a side wall (34) which defines a central bore having a closed end via a washer (88) and an open end, the metal housing having an axial lubrication port

(90) in the closed end (88) of the central bore; a metal lower bearing (24, shown with a metal cross-hatching) disposed within the central bore adjacent the closed end, the metal lower bearing (24) including a lubrication slot (60) disposed on an inner bearing surface, the lubrication slot (60) being generally axially aligned with the central lubrication port (90) in the metal housing (30) to provide a common lubrication passageway; a metal moveable member (52) having a head end portion (50) disposed in the central bore and a shank portion (54) extending from the head end portion (50), the head end portion (50) engaging the central bore of the metal housing (30), the shank portion (54) being at least partially disposed outside of the central bore; an annular metal upper bearing (26) disposed about the movable member (52) within the central bore, the annular metal upper bearing (26) having an inner surface engaging the head end portion (50) in direct metal-to-metal sliding contact, and outer surface directly engaging the side wall (34), and a split segment (96) extending from the inner surface to the outer surface; and wherein the annular metal upper bearing (26) is configured to engage the side wall (34) and the head end portion (50) simultaneously. Maughan fails to disclose an annular cover plate disposed about the movable member and secured within the central bore; and a spring member compressed between the annular cover plate and an upper surface of the annular upper bearing; the annular cover plate and spring member are composed of metal, and wherein the spring member exerts an axial preload force on an annular metal upper bearing (constituted by an inner surface of the housing 10) with toward the closed end of the central bore, and a head end portion (12a) simultaneously. Graham et al. teach a ball joint (Fig. 2) that includes an annular cover plate (15) disposed about the movable member (12) and secured within the central bore; a spring member (14) compressed between the annular cover plate (15) and an upper surface of the annular upper bearing (13); the annular cover plate (15) and spring member (14) are composed of metal, and wherein the spring member (14) exerts an axial preload force on the annular metal upper bearing (13) toward the closed end of the central bore, and the head end portion (12a) simultaneously. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the ball socket joint of Maughan with a metal cover plate and a metal spring as taught by Graham et al. in order to urge the bearing wall of the bearing ring to maintain it against the ball end of the stud.

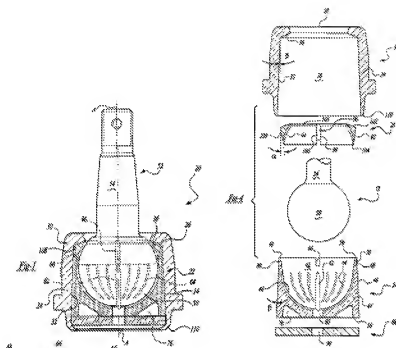
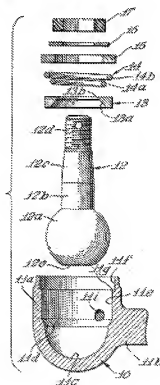


Fig. 3



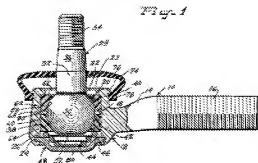
With respect to claim 5, Maughan in view of Graham et al, as advanced above, would result in the annular metal upper bearing (26) being axially displaceable within the central bore.

With respect to claim 6, Maughan discloses (Fig. 1) the metal lower bearing (24) is retained with the central bore by an interference fit.

With respect to claim 10, Maughan fails to disclose that the housing includes a deformable annular region adjacent the open end of the central bore, the deformable annular region adapted for radially inward deformation to secure the annular cover plate within the central bore. Graham et al. disclose (Fig. 1) the housing (11) includes a deformable annular region (11j) adjacent the open end of the central bore, the deformable annular region adapted for radially inward deformation to secure the annular cover plate (15) within the central bore. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the ball joint of Maughan with a cover plate having a deformable annular region adjacent the open end of the central bore as taught by Graham et al. in order to secure the cover plate into the housing.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Maughan and Graham et al. as applied to claims 1, 3-6, and 10 above, and further in view of US Patent No. 3,128,110 Herbenar.

With respect to claim 7, Maughan and Graham et al. fail to disclose that the dust boot restrictor disposed about the shank portion. Herbenar teaches a ball joint (Fig. 1) having a dust boot (74). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the ball joint of Maughan with a dust boot as taught by Herbenar in order to order to seal the open upper end of the housing



With respect to claim 8, Maughan and Graham et al. fail to disclose a flexible dust cover coupled between the housing and the shank portion of the movable member. Herbenar teaches (Fig. 1) a flexible dust cover (74) coupled between the housing (12) and the shank portion (32) of the movable member (28). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the joint of Maughan with a dust cover as taught by Herbenar in order to seal the open upper end of the housing.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Maughan and Graham et al. as applied to claims 1, 3-6, and 10 above, and further in view of US Patent No. 5,116,159 Kern, Jr. et al.

With respect to claim 11, Maughan and Graham et al. fail to disclose that the annular cover plate includes a chamfered inner surface to restrict articulation of the movable member. Kern Jr. et al. teach (Fig. 4, column 3, lines 55-57) that the edge of the annular edge (50) of the bearing (14) is a chamfered edge (54) to facilitate extrusion of the plastic upon the forming of the joint during preload. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the inner surface of the annular cover plate of Maughan with a chamfered edge as taught by Kern, Jr. et al. in order facilitating extrusion of the plastic upon the forming of the joint during preload and offers a grater extrusion capacity for any given set of dimensional tolerances.

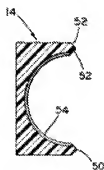


FIG. 4

Response to Arguments

Applicant's arguments with respect to claims 1, 3-8, 10, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on Monday through Thursday from 8:00-6:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nahid Amiri
Examiner
Art Unit 3679
July 15, 2009

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679